

Attorney Docket No. P13536-US
Customer Number 27045

REMARKS/ARGUMENTS

Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

1.) Claim Status

The Applicant has amended claims 1, 4, 8, 9, 11, 14, and 16 herein. Claims 7, 15, 17, 19, 20, 22, and 23 have been canceled. Accordingly, claims 1-6, 8-14, 16, 18, and 21 are pending in the application.

2.) Response to Advisory Action

The Examiner stated that the reply filed on 06/22/2005 was not fully responsive because the Applicant did not address the issue of the patentability of the claims with the limitation "without matrix operation." The Examiner further stated that this limitation was recited in the original claims, and was rejected under Skold. The Applicant respectfully disagrees.

The claims filed in the reply of 06/22/2005 recited the combination of "without matrix operation" and "using any consecutive $m+15$ symbols of the 26-symbol training sequence to estimate the transmission channel for different channel spans m ." This combination was not previously examined or rejected by the Examiner.

The original claims recited "without matrix operation" in combination with "using any consecutive 16-symbol segment of the 26-symbol training sequence to estimate the transmission channel for different equalizer window sizes." This combination was rejected under Skold in the Office Action dated 09/07/2004. The Applicant amended the claims in the reply filed 12/10/2004 to delete "without matrix operation" and to recite "using any consecutive $m+15$ symbols of the 26-symbol training sequence to estimate the transmission channel for different channel spans m ." This combination was rejected under Johansson in the Final Office Action dated 04/13/2005.

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In paragraph 7 of the Final Office Action, however, the Examiner indicated *Allowable Subject Matter*. In particular, the Examiner stated that claims 17, 20, and 23 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 17, 20, and 23 recited that the estimation of the transmission channel is performed "without matrix operation". Claim 17 depended directly from independent claim 1; claim 20 depended directly from independent claim 11; and claim 23 depended directly from independent claim 14. Therefore, rather than rewriting claims 17, 20, and 23 in independent form, the Applicant incorporated the limitations of claims 17, 20, and 23 into their base claims 1, 11, and 14, respectively. The Applicant noted these amendments in the Remarks on page 4, paragraph 4 of the reply.

Therefore, not only was the reply fully responsive, the independent claims were placed in a condition that the Examiner had expressly stated was allowable. Therefore, the allowance of independent claims 1, 11, and 14, together with all dependent claims, is respectfully requested.

3) Claim Objections

In paragraph 4 of the Final Office Action, the Examiner objected to claims 1, 11, and 14 for failing to define a range of values for " m ". The Applicant has amended claim 1 to recite $1 \leq m \leq 8$. The Applicant has amended claims 11 and 14 to recite $2 \leq m \leq 8$. Therefore, the withdrawal of the objection to claims 1, 11, and 14 is respectfully requested.

4.) Claim Rejections – 35 U.S.C. § 102

The Examiner's rejections under 35 U.S.C. § 102 were addressed in the Applicant's reply filed 06/22/2005. The Applicant further notes that the Examiner has argued that if $m = 1$, then the limitation $m+15$ symbols reads on Skold's disclosure of 16 symbols. The Applicant has defined m as $2 \leq m \leq 8$ in independent claims 11 and 14.

Independent claim 1 has been amended to incorporate the limitation of allowable claim 7. Therefore, the allowance of amended claim 1 is respectfully requested.

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CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 1-6, 8-14, 16, 18, and 21.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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